CONTENTS OF VOLUME 40

Vol. 40 No. 1 September 1998

Special Issue

Mitigation of Greenhouse Gas Emissions by the Agriculture Sector

Guest Editors

C. VERNON COLE NORMAN J. ROSENBERG KEITH PAUSTIAN

N.J. ROSENBERG, C.V. COLE and K. PAUSTIAN / Mitigation of Greenhouse Gas Emissions by the Agriculture Sector. New Technologies, Policies and Measures Offer Potential to Mitigate Emissions While Improving Productivity and Ecosystem Health: An Introductory Editorial	1-5
A.R. MOSIER, J.M. DUXBURY, J.R. FRENEY, O. HEINEMEYER and K. MINAMI / Assessing and Mitigating $\rm N_2O$ Emissions from Agricultural Soils	7–38
A.R. MOSIER, J.M. DUXBURY, J.R. FRENEY, O. HEINEMEYER, K. MINAMI and D.E. JOHNSON / Mitigating Agricultural Emissions of Methane	39–80
J. DUMANSKI, R.L. DESJARDINS, C. TARNOCAI, C. MONREAL, E.G. GREGORICH, V. KIRKWOOD and C.A. CAMPBELL / Possibilities for Future Carbon Sequestration in Canadian Agriculture in Relation to Land Use Changes	81–103
H. TIESSEN, C. FELLER, E.V.S.B. SAMPAIO and P. GARIN / Carbon Sequestration and Turnover in Semiarid Savannas and Dry Forest	105–117
LI ZHONG and ZHAO QI-GUO / Carbon Dioxide Fluxes and Potential Mitigation in Agriculture and Forestry of Tropical and Subtropical China	119–133
K. PAUSTIAN, C.V. COLE, D. SAUERBECK and N. SAMPSON / CO ₂ Mitigation by Agriculture: An Overview	135–162

Vol. 40 No. 2 October 1998

Special Issue

Canadian Freshwater Wetlands and Climate Change

Guest Editor THOMAS A. CLAIR

THOMAS A. CLAIR / Guest Editorial	163–165
WETLAND DRIVING MECHANISMS	
SHERRY SCHIFF, RAMON ARAVENA, ERIC MEWHINNEY, RICHARD ELGOOD, BARRY WARNER, PETER DILLON and SUSAN TRUMBORE / Precambrian Shield Wetlands: Hydrologic Control of the Sources and Export of Dissolved Organic Matter	167–188
THOMAS C. WINTER and DONALD O. ROSENBERRY / Hydrology of Prairie Pothole Wetlands during Drought and Deluge: a 17-year Study of the Cottonwood Lake Wetland Complex in North Dakota in the Perspective of Longer Term Measured and Proxy Hydrological Records	189–209
PETER J. ZEEB and HAROLD F. HEMOND / Hydrologic Response of a Wetland to Changing Moisture Conditions: Modeling Effects of Soil Heterogeneity	211–227
CARBON CYCLING	
T.R. MOORE, N.T. ROULET and J.M. WADDINGTON / Uncertainty in Predicting the Effect of Climatic Change on the Carbon Cycling of Canadian Peatlands	229-245
C. McKENZIE, S. SCHIFF, R. ARAVENA, C. KELLY and V. St. LOUIS / Effect of Temperature on Production of CH ₄ and CO ₂ from Peat in a Natural and Flooded Boreal Forest Wetland	247–266
J.M. WADDINGTON, T.J. GRIFFIS and W.R. ROUSE / Northern Canadian Wetlands: Net Ecosystem CO ₂ Exchange and Climatic Change	267–275
D. ANN BROWN / Gas Production from an Ombrotrophic Bog – Effect of Climate Change on Microbial Ecology	277-284
LESSONS FROM THE PAST	
SHEILA R. VARDY, BARRY G. WARNER and RAMON ARAVENA / Holocene Climate and the Development of a Subarctic Peatland Near Inuvik, Northwest Territories, Canada	285–313
LINDA A. HALSEY, DALE H. VITT and ILKA E. BAUER / Peatland Initiation during the Holocene in Continental Western Canada	315–342

IMPACTS OF CHANGING WETLANDS

- LISA G. SORENSON, RICHARD GOLDBERG, TERRY L. ROOT and MICHAEL G. ANDERSON / Potential Effects of Global Warming on Waterfowl Populations Breeding in the Northern Great Plains 343–369
- GEOFFREY WALL / Implications of Global Climate Change for Tourism and Recreation in Wetland Areas

371-389

LINDA D. MORTSCH / Assessing the Impact of Climate Change on the Great Lakes Shoreline Wetlands

391-416

Vol. 40 Nos. 3-4 December 1998

NEVILLE NICHOLLS and TAHL KESTIN / Communicating Climate. An Editorial Comment

417-420

A. HENDERSON-SELLERS / Climate Whispers: Media Communication about Climate Change

421-456

FILIPPO GIORGI, LINDA O. MEARNS, CHRISTINE SHIELDS and LARRY McDANIEL / Regional Nested Model Simulations of Present Day and 2 × CO₂ Climate over the Central Plains of the U.S.

457-493

G.M. WOODWELL, F.T. MACKENZIE, R.A. HOUGHTON, M. APPS, E. GORHAM and E. DAVIDSON / Biotic Feedbacks in the Warming of the Earth

495-518

ALI UMRAN KOMUSCU, AYHAN ERKAN and SUKRIYE OZ / Possible Impacts of Climate Change on Soil Moisture Availability in the Southeast Anatolia Development Project Region (GAP): An Analysis from an Agricultural Drought Perspective

519-545

H.G. STEFAN, X. FANG and M. HONDZO / Simulated Climate Change Effects on Year-Round Water Temperatures in Temperate Zone Lakes

547-576

MICHAEL CHENOWETH / The Early 19th Century Climate of the Bahamas and a Comparison with 20th Century Averages

577-603

R.J. ARTHERN and D.J. WINGHAM / The Natural Fluctuations of Firn Densification and Their Effect on the Geodetic Determination of Ice Sheet Mass Balance

605-624

F.S. RODRIGO, M.J. ESTEBAN-PARRA and Y. CASTRO-DIEZ / On the Use of the Jesuit Order Private Correspondence Records in Climate Reconstructions: A Case Study from Castille (Spain) for 1634–1648 A.D.

625-645

GYANENDRA B. DHAKHWA and C. LEE CAMPBELL / Potential Effects of Differential Day-Night Warming in Global Climate Change on Crop Production

647-667

ROBERT C. BALLING, Jr., JEFFREY M. KLOPATEK, MARK L. HILDE-BRANDT, CHERIE K. MORITZ and CHRISTOPHER J. WATTS /	
Impacts of Land Degradation on Historical Temperature Records from the Sonoran Desert	669–681
MATHIAS HERBST and GEORG HÖRMANN / Predicting Effects of Temperature Increase on the Water Balance of Beech Forest – An Application of the 'KAUSHA' Model	683-698
DAVID DEMERITT and DALE ROTHMAN / Comments on J.B. Smith (<i>Climatic Change</i> 32 , 313–326) and the Aggregation of Climate Change Damage Costs	699–704
JOEL B. SMITH / Response to Commentary by Demeritt and Rothman	705-707
Volume Contents	709-712
Author Index	713

